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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Hamilton, II et al.**

Serial No. 09/710,922

Filed: November 9, 2000

For: **Data Processing System and
Method for Distributing a Device
Driver to a Plurality of Client
Computer Systems Each Executing
Different Operating Systems**

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Group Art Unit: 2145

Examiner: **Duong, Thomas**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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By:


Stephanie Fay

APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on July 20, 2005.

The fees required under § 41.20(B)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

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REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: International Business Machines Corporation of Armonk, New York.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS**A. TOTAL NUMBER OF CLAIMS IN APPLICATION**

Claims in the application are: 1, 4-8, 11-15, and 18-21.

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims canceled: 2-3, 9-10, and 16-17
2. Claims withdrawn from consideration but not canceled: None
3. Claims pending: 1, 4-8, 11-15, and 18-21
4. Claims allowed: None
5. Claims rejected: 1, 4-8, 11-15, and 18-21
6. Claims objected to: None

C. CLAIMS ON APPEAL

The claims on appeal are: 1, 4-8, 11-15, and 18-21.

STATUS OF AMENDMENTS

No amendments were filed after the final office action of May 4, 2005.

SUMMARY OF CLAIMED SUBJECT MATTER

A. CLAIM 1 - INDEPENDENT

The subject matter of claim 1 is directed to a method for automatically installing a device driver on a plurality of heterogeneous client computer systems, wherein each of said heterogeneous client computer systems executes a different one of a plurality of operating systems (specification, pg. 4, ll. 3-6; pg. 7, ll. 19-25; pg. 9, ll. 19-22; Fig. 1). The method is performed in a data processing system including a server computer system coupled to a plurality of heterogeneous client computer systems via a network (specification, pg. 4, ll. 6-8; pg. 8, l. 24 through pg. 10, l. 5; Fig. 1). The method includes selecting a device driver to be installed and specifying said plurality of heterogeneous client computer systems to receive said device driver (specification, pg. 13, l. 22 through pg. 15, l. 10; Figs. 4A and 4B). The method also includes storing a plurality of different versions of said device driver in said server computer system, wherein each one of said plurality of different versions is executable by only a different one of said plurality of operating system (specification, pg. 16, l. 5 through pg. 17, l. 10; Fig. 5). The method also includes gathering, by said server computer system, a network address of each one of said plurality of client computer systems (specification, pg. 17, ll. 19-22; Fig. 6, reference numeral 606). The method further includes determining, by said server computer system, one of said plurality of operating systems being executed by each one of said plurality of client computer systems (specification, pg. 17, ll. 23-26; Fig. 6, reference numeral 608). In addition, the method specifies creating, in said server computer system, a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of client computer systems, and said network address determined for said one of said plurality of client computer systems (specification, pg. 17, ll. 26-30; Fig. 6, reference numeral 610). The method also specifies distributing, by said server computer system, said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by performing the following additional steps (specification, pg. 17, l. 32 through pg. 19, l. 19; Fig. 7). The method further includes getting an entry from said file and creating an install directory on said one of said plurality of client computer systems that is specified in said entry

(specification, pg. 18, ll. 5-8; pg. 18, ll. 19-21; Fig. 7, reference numerals 702 and 708). The method also includes determining an operating system listed in said entry and selecting one of said plurality of different versions of said device driver that is executable by said determined one of said plurality of different operating systems (specification, pg. 18, ll. 12-14; pg. 18, ll. 20-23; Fig. 7, reference numerals 704 and 710). In addition, the method specifies executing a remote copy command to copy said selected one of said plurality of different versions of said device driver to said install directory created on said one of said plurality of client computer systems that is specified by said entry, said remote copy command utilizing said network address that is specified in said entry (specification, pg. 18, ll. 23-26; Fig. 7, reference numeral 712). Also, the method includes causing, by said server computer system, said one of said plurality of client computer systems that is specified by said entry to execute an install command to install said selected one of said plurality of different versions of said device driver (specification, pg. 18, ll. 27-30; Fig. 7, reference numeral 714). Finally, the method includes repeating said step of distributing said plurality of versions for each one of said plurality of entries of said file (specification, pg. 19, ll. 10-19; Fig. 7, reference numerals 722, 724, and 726).

B. CLAIM 8 - INDEPENDENT

The subject matter of claim 8 is directed to a data processing system for automatically installing a device driver on a plurality of heterogeneous client computer systems, wherein each of said heterogeneous client computer systems executes a different one of a plurality of operating systems (specification, pg. 4, ll. 3-6; pg. 7, ll. 19-25; pg. 8, l. 24 through pg. 9, l. 22; Fig. 1). The data processing system includes a server computer system coupled to a plurality of heterogeneous client computer systems via a network (specification, pg. 4, ll. 6-8; pg. 8, l. 24 through pg. 10, l. 5; Fig. 1). The data processing system has a means for selecting a device driver to be installed and a means for specifying said plurality of heterogeneous client computer systems to receive said device driver (specification, pg. 13, l. 22 through pg. 15, l. 10; Figs. 4A and 4B). The data processing system also has a means for storing a plurality of different versions of said device driver in said server computer system, wherein each one of said plurality of different versions is executable by only a different one of said plurality of operating system (specification, pg. 14, ll. 19-31; Fig. 4B; pg. 16, l. 5 through pg. 17, l. 10; Fig. 5). The data processing system also includes a server computer system gathering, by said server computer system, a network address

of each one of said plurality of client computer systems (specification, pg. 17, ll. 19-22; Fig. 6, reference numeral 606). The data processing system further includes a server computer system determining, by said server computer system, one of said plurality of operating systems being executed by each one of said plurality of client computer systems (specification, pg. 17, ll. 23-26; Fig. 6, reference numeral 608). In addition, the data processing system specifies a server computer system for creating, in said server computer system, a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of client computer systems, and said network address determined for said one of said plurality of client computer systems (specification, pg. 17, ll. 26-30; Fig. 6, reference numeral 610). The data processing system also specifies a server computer system distributing, by said server computer system, said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by performing the following additional steps (specification, pg. 17, l. 32 through pg. 19, l. 19; Fig. 7). The data processing system further includes a server computer system getting an entry from said file and creating an install directory on said one of said plurality of client computer systems that is specified in said entry (specification, pg. 18, ll. 5-8; pg. 18, ll. 19-21; Fig. 7, reference numerals 702 and 708). The data processing system also includes a server computer system determining an operating system listed in said entry and selecting one of said plurality of different versions of said device driver that is executable by said determined one of said plurality of different operating systems (specification, pg. 18, ll. 12-14; pg. 18, ll. 20-23; Fig. 7, reference numerals 704 and 710). In addition, the data processing system specifies a server computer system executing a remote copy command to copy said selected one of said plurality of different versions of said device driver to said install directory created on said one of said plurality of client computer systems that is specified by said entry, said remote copy command utilizing said network address that is specified in said entry (specification, pg. 18, ll. 23-26; Fig. 7, reference numeral 712). Also, the data processing system includes a server computer system causing, by said server computer system, said one of said plurality of client computer systems that is specified by said entry to execute an install command to install said selected one of said plurality of different versions of said device driver (specification, pg. 18, ll. 27-30; Fig. 7, reference numeral 714). Finally, the data processing system includes a means for repeating said step of distributing said plurality of versions for each

one of said plurality of entries of said file (specification, pg. 19, ll. 10-19; Fig. 7, reference numerals 722, 724, and 726).

C. CLAIM 15 - INDEPENDENT

The subject matter of claim 15 is directed to a computer readable media method for automatically installing a device driver on a plurality of heterogeneous client computer systems, wherein each of said heterogeneous client computer systems executes a different one of a plurality of operating systems (specification, pg. 4, ll. 3-6; pg. 7, ll. 19-25; pg. 9, ll. 19-22; Fig. 1; pg. 20, ll. 14-26). The computer readable media includes a server computer system coupled to a plurality of heterogeneous client computer systems via a network (specification, pg. 4, ll. 6-8; pg. 8, l. 24 through pg. 10, l. 5; Fig. 1; pg. 20, ll. 14-26). The computer readable media has instructions for selecting a device driver to be installed and instruction means for specifying said plurality of heterogeneous client computer systems to receive said device driver (specification, pg. 13, l. 22 through pg. 15, l. 10; Figs. 4A and 4B). The computer readable media also has instructions means for storing a plurality of different versions of said device driver in said server computer system, wherein each one of said plurality of different versions is executable by only a different one of said plurality of operating system (specification, pg. 14, ll. 19-31; Fig. 4B; pg. 16, l. 5 through pg. 17, l. 10; Fig. 5). The computer readable media also includes instructions for gathering, by said server computer system, a network address of each one of said plurality of client computer systems (specification, pg. 17, ll. 19-22; Fig. 6, reference numeral 606). The computer readable media further includes instructions for determining, by said server computer system, one of said plurality of operating systems being executed by each one of said plurality of client computer systems (specification, pg. 17, ll. 23-26; Fig. 6, reference numeral 608). In addition, the computer readable media specifies instruction means for creating, in said server computer system, a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of client computer systems, and said network address determined for said one of said plurality of client computer systems (specification, pg. 17, ll. 26-30; Fig. 6, reference numeral 610). The computer readable media also specifies instructions means for distributing, by said server computer system, said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by

performing the following additional steps (specification, pg. 17, l. 32 through pg. 19, l. 19; Fig. 7). The computer readable media further includes instructions for setting an entry from said file and creating an install directory on said one of said plurality of client computer systems that is specified in said entry (specification, pg. 18, ll. 5-8; pg. 18, ll. 19-21; Fig. 7, reference numerals 702 and 708). The computer readable media also includes instructions for determining an operating system listed in said entry and selecting one of said plurality of different versions of said device driver that is executable by said determined one of said plurality of different operating systems (specification, pg. 18, ll. 12-14; pg. 18, ll. 20-23; Fig. 7, reference numerals 704 and 710). In addition, the computer readable media specifies instructions for executing a remote copy command to copy said selected one of said plurality of different versions of said device driver to said install directory created on said one of said plurality of client computer systems that is specified by said entry, said remote copy command utilizing said network address that is specified in said entry (specification, pg. 18, ll. 23-26; Fig. 7, reference numeral 712). Also, the computer readable media includes instructions for causing, by said server computer system, said one of said plurality of client computer systems that is specified by said entry to execute an install command to install said selected one of said plurality of different versions of said device driver (specification, pg. 18, ll. 27-30; Fig. 7, reference numeral 714). Finally, the computer readable media includes instructions for repeating said step of distributing said plurality of versions for each one of said plurality of entries of said file (specification, pg. 19, ll. 10-19; Fig. 7, reference numerals 722, 724, and 726).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

A. GROUND OF REJECTION 1 (Claims 1, 4-8, 11-15, and 18-21)

Claims 1, 4-8, 11-15, and 18-21 stand rejected under 35 U.S.C. § 103(a) as obvious over *Davis et al.*, Automatic Software Installation on Heterogeneous Networked Client Computer Systems, U.S. Patent No. 5,742,829 (April 21, 1998) (hereinafter "*Davis*") in view of *Sakanishi*, Method and System for Software Distribution, U.S. Patent No. 6,678,888 (January 13, 2004) (hereinafter "*Sakanishi*").

ARGUMENT

A. GROUND OF REJECTION 1 (Claims 1, 4-8, 11-15, and 18-21)

A.1. CLAIMS 1, 8, AND 15

Claim 1 is a representative claim in this group of claims. Claim 1 is as follows:

1. A method in a data processing system including a server computer system coupled to a plurality of heterogeneous client computer systems via a network for automatically installing a device driver on said plurality of heterogeneous client computer systems, wherein each of said heterogeneous client computer systems executes a different one of a plurality of operating systems, said method comprising the steps of:
 - selecting a device driver to be installed;
 - specifying said plurality of heterogeneous client computer systems to receive said device driver;
 - storing a plurality of different versions of said device driver in said server computer system, wherein each one of said plurality of different versions is executable by only a different one of said plurality of operating systems;
 - gathering, by said server computer system, a network address of each one of said plurality of client computer systems;
 - determining, by said server computer system, one of said plurality of operating systems being executed by each one of said plurality of client computer systems;
 - creating, in said server computer system, a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of client computer systems, and said network address determined for said one of said plurality of client computer systems; and
 - distributing, by said server computer system, said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by:
 - getting an entry from said file;
 - creating an install directory on said one of said plurality of client computer systems that is specified in said entry;
 - determining an operating system listed in said entry;
 - selecting one of said plurality of different versions of said device driver that is executable by said determined one of said plurality of different operating systems;
 - executing a remote copy command to copy said selected one of said plurality of different versions of said device driver to said install directory created on said one of said plurality of client computer systems

that is specified by said entry, said remote copy command utilizing said network address that is specified in said entry;
causing, by said server computer system, said one of said plurality of client computer systems that is specified by said entry to execute an install command to install said selected one of said plurality of different versions of said device driver;
repeating said step of distributing said plurality of versions for each one of said plurality of entries of said file.

The examiner has failed to state a *prima facie* obviousness rejection against claim 1. In addition, claim 1 is non obvious in view of the references when the references are considered as a whole.

A.1.1. THE PROPOSED COMBINATION DOES NOT RESULT IN THE CLAIMED INVENTION.

The examiner bears the burden of establishing a *prima facie* case of obviousness based on the prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Additionally, all limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). In comparing *Davis* and *Sakanishi* to the claimed invention to determine obviousness, limitations of the presently claimed invention may not be ignored. Thus, in this case, the examiner fails to state a *prima facie* case of obviousness against claims 1, 8, and 15, because the proposed combination does not show all of the features of claim 1 and therefore the proposed combination does not result in the claimed invention.

Neither *Davis* nor *Sakanishi* show or suggest gathering, by said server computer system, a network address of each one of said plurality of client computer systems; creating, in said server computer system, a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of client computer systems, and said network address determined for said one of said plurality of client computer systems; and distributing, by said server computer system, said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by: getting an entry from said file; creating an install directory on said one of said plurality of client computer systems that is specified in said entry; determining an operating system listed in said entry; selecting one of said

plurality of different versions of said device driver that is executable by said determined one of said plurality of different operating systems; executing a remote copy command to copy said selected one of said plurality of different versions of said device driver to said install directory created on said one of said plurality of client computer systems that is specified by said entry, said remote copy command utilizing said network address that is specified in said entry; causing, *by said server computer system*, said one of said plurality of client computer systems that is specified by said entry to execute an install command to install said selected one of said plurality of different versions of said device driver; repeating said step of distributing said plurality of versions for each one of said plurality of entries of said file.

The examiner admits, and Applicant agrees, that *Davis* does not disclose all of the features of claim 1. Office action of May 4, 2005, p. 6. The examiner contends that *Davis* does disclose the remaining features by citing to various text and figures within the reference. However, the examiner misapprehends the reference because *Davis* does not show the claimed features of distributing the device driver version using a file by creating an install directory, determining an operating system, selecting one of the drivers, executing a remote copy command, and causing a client computer to execute the install command.

Davis states as follows (emphasis added):

[Column 11, lines 30-49] FIGS. 5A and 5B depict a flowchart of the steps performed by the preferred embodiment of the present invention when automatically installing software on client computers. The preferred embodiment of the present invention automatically installs software on client computers, as well as deinstalls (or deletes) software from client computers when the client computers logon to their respective client server. In automatically installing software on the client computers, the preferred embodiment performs this installation when the natural language of the client computer changes between logons, the operating system of the client computer changes between logons, the version of the software on the client computer becomes outdated, or in response to input of the administrator. The first step performed by the preferred embodiment of the present invention is that *the logon script is invoked when the end user of the client computer attempts to logon to the client server (step 502)*. Upon the invocation of the logon script, the logon script requests the client server to perform user validation, as well as other functionality associated with the logon process.

[Column 11, lines 50-57] *After the logon script is invoked*, the logon script invokes the SMSLS batch file (step 504). The SMSLS batch file is specific to one or more operating systems. That is, one copy of the SMSLS batch file is specific

to "MS DOS," "MICROSOFT WINDOWS," and "MICROSOFT WINDOWS NT." Another copy of the SMSLS batch file is specific to "OS/2." The logon script executes the SMSLS batch file by invoking "SMSLS" without specifying an extension. The operating system of the client then automatically inserts the appropriate extension for the execution of the batch file. That is, *although the SMSLS batch file and other files and executables described below are located on the client server, the processing (or execution) of these files occurs on the processor of the client computer.* In "MS DOS," "MICROSOFT WINDOWS," and "MICROSOFT WINDOWS NT" the extension used is ".bat." Alternatively, the extension used for either the Microsoft Operating System 2 or the IBM "OS/2" operating system is ".cmd."

Davis describes a method of automatically updating software on client computer systems where each client computer operates on different operating systems and uses different natural languages. As shown by the emphasized text, the updating and installation process in *Davis* is triggered by the user logging on to his or her computer system. After logging on, the logon script invokes the batch file which executes the updating process. The update and installation process occurs in the client computer's processor and not in the client server. The client server holds the batch file and other executable files, but the actual processing of the update and installation occurs within the client's computer system.

On the other hand, the claimed invention distributes versions of the device driver, creates installation directories, executes remote copy commands of the different versions of the device drivers, and causes the installation of the device driver version using *the server computer system*. The method of installing a device driver on the plurality of heterogeneous client computer systems is not triggered by the user logging on to the system and not controlled by the client computer's processor. The claimed invention automatically installs the driver device by distributing, by *said server computer system*, a plurality of versions of said plurality of client computer systems utilizing said file. *Davis* does not teach or suggest these features using the server computer system.

Moreover, *Sakanishi* does not cure the lack of disclosure in *Davis*. *Sakanishi* describes a method of distributing software to a client computer system in which all the correct supporting software, such as the run-time library, driver for accessing a database, and communications protocols, are installed when the primary software is installed. *Sakanishi* uses a system of files to organize and coordinate the data required to install all the primary and supporting software. Like

Davis, *Sakanishi* does not teach or suggest the distribution of different device drivers to a client computer system, creating an installation directory, executing remote copy commands of the different versions of the device drivers, or causing the installation of the device driver using the server computer system. The claimed features are not described in *Sakanishi*. Thus, *Sakanishi* does not cure the lack of disclosure in *Davis*. Accordingly, all the features of claim 1 are not taught by the combination of *Davis* and *Sakanishi*.

Furthermore, the examiner fails to establish a *prima facie* case of obviousness because *Sakanishi* does not teach or suggest the features of claim 1 as asserted by the examiner at pages 7-9 of the Office Action dated May 4, 2005. The examiner asserts that *Sakanishi* does teach the features citing *Sakanishi* (emphasis added) as follows:

[column 4, lines 64-66] [T]he user of a controlled system *specifies* desired software and executes a software distribution command.

[column 7, lines 35-38] As another alternative, the *person in charge* of software management *may have a software information file generated automatically* by utilization of data set by using a *GUI or a command*.

[column 9, lines 60-67] When the *user* enters information on software to be distributed including a software-identifying ID or a software name as well as a version, and, if necessary, information specifying a priority level and the IP address of a controlled system serving as a recipient of the software or a host name, and entry of premise software shown in FIG. 8 is generated from the information and on the software[.]

As the emphasized text shows, the user controls and specifies the software distribution command and enters the IP address of where the software is to be distributed. The software distribution information is not gathered automatically and processed automatically by the server computer systems in the manner claimed in the present invention. Although the text in column 7 suggests that a person in charge may create a GUI or a command to automatically generate a software information file, the cited text still does not teach or suggest installing a device driver by *the server computer system*. The generation of a software information file does not equate to the installation of a device driver.

Furthermore, *Sakanishi* does not teach or suggest the features of gathering, by said server computer system, a network address of each one of said plurality of client computer systems; creating, in said server computer system, a file including a plurality of entries, each one of said

plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of client computer systems, and said network address determined for said one of said plurality of client computer systems; and distributing, by said server computer system, said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by: getting an entry from said file; and repeating said step of distributing said plurality of versions for each one of said plurality of entries of said file. The examiner asserts that *Sakanishi* does disclose these features by referring to the same text in column 7 cited above. However, the examiner misunderstands the cited text.

Column 7 of the cited text refers to a software information file found in figure 3 of *Sakanishi*. Figure 3 of *Sakanishi* is as follows:

FIG.3

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Typical software information file
ProductID=ProgramA
ProductName=ProgramA
ProductVersion=008
Media=1, SourcePath=X:TEST\BIN\ProgramA.exe
Media=1, SourcePath=X:TEST\BIN\Uninstall.exe
DefaultInstallPath=C:\
UninstallPath=X:TEST\BIN\Uninstall.exe
DiskSpace=2882018
Date=19990520214940
TotalInstallTime=00:12:35
Price=X:16000
TargetOS=Windows NT, MinimumVersion=3.51
Premise=HW, CPU, LowerVersion=1465
Premise=SW, ProgramAA, LowerVersion=002, UpperVersion=008
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According to *Sakanishi*, the information defined in a software information file can be used as a basis for creating software management information in a software table. The software information file and software management information are two different types of information tools used in *Sakanishi*. The software information file can be written by a software developer, created by a person in charge of the software management information, or automatically generated by the use of a GUI or a command. The software information file identifies the software loaded on a particular user's computer and drive where the software is located. The

software information file does not specify a particular IP address nor does *Sakanishi* teach or suggest that the software information file contains an IP address. At best, *Sakanishi* identifies the drive on the user's computer under the section "DefaultInstallPath=c:\", but even that designation does not equate to the identification of an IP address. As quoted in the cited text above, *Sakanishi* does mention a user entering an IP address when requesting the distribution of software to that user's system. However, *Sakanishi* does not teach or suggest the identification of an IP address within the software information file as claimed, nor does *Sakanishi* teach or suggest the gathering by a server computer system of the IP addresses as claimed.

Furthermore, if the suggestion is made that the "DefaultInstallPath" field may also be an IP address, then such a suggestion would have to be based on impermissible hindsight because the suggestion is found in the present application, but not in *Sakanishi*. In determining obviousness, an applicant's teachings may not be read into the prior art. *Panduit Corp. v. Denison Mfg. Co.*, 810 F.2d 1561, 1575 n. 29, 1 U.S.P.Q. 1593, 1602 n. 29 (Fed. Cir. 1987) (citing need to "guard against hindsight and the temptation to read the inventor's teachings into the prior art"). A determination of the desirability of combining prior art references must be made without the benefit of hindsight afforded by an applicant's disclosure. *In re Paulsen*, 30 F.3d 1475, 1482, 31 U.S.P.Q. 1671, 1676 (Fed. Cir. 1994). If a suggestion that the "DefaultInstallPath" field includes an IP address is made, then the basis can only be by impermissible hindsight. Thus, *Sakanishi* does not teach or suggest the feature of gathering, by said server computer system, a network address of each one of said plurality of client computer systems.

Additionally, *Sakanishi* also does not teach or suggest the creation of a file or distribution of the versions of device drivers to the client computer systems utilizing the file by the server computer system. The file created by the server computer system includes the identification of the client computer system, the operating system for the client computer system, and the network address for the client computer system. *Sakanishi* does not teach or suggest the creation of the file by a server computer system which includes the network addresses gathered by the server computer system. Because *Sakanishi* does not teach or suggest such a feature, then *Sakanishi* cannot teach or suggest the utilization of the file to distribute the plurality of versions of device drivers nor the specifics of how to distribute, such as getting an entry from the file.

As admitted by the examiner, *Davis* is also devoid of disclosure in this regard. As shown above, *Sakanishi* does not teach or suggest the features of claim 1 as asserted by the examiner.

For this reason, the proposed combination does not teach all of the features of claims 1. Therefore, the examiner has failed to state a *prima facie* obviousness rejection of claim 1. Similarly, the examiner has failed to state a *prima facie* obviousness rejection of claims 8 and 15, which contain features similar to those presented in claim 1.

Furthermore, the examiner has only stated a possible advantage for combining the references and not a motivation to combine. An advantage can not be substituted for a motivation to combine the references because an advantage is not necessarily a motivation. For example, a first reference may disclose the use of lasers to achieve nuclear fusion. A second reference may disclose that an ultra-high power lasers deliver more energy. One of ordinary skill may recognize that an ultra-high power laser would be a more useful tool to achieve nuclear fusion, though one of ordinary skill would be motivated to avoid combining the references because of the extreme expense of ultra-high power lasers. In this example, one of ordinary skill is motivated to avoid implementing the combination, even if he or she recognized the advantage.

Thus, in this example, no motivation exists to combine the references. In the case at hand, the examiner has not provided any reason why one of ordinary skill would recognize the proposed advantage and, as shown above, the examiner has not provided a sufficient reason that one of ordinary skill would desire to implement the purported advantage. For this reason, the examiner's statement fails to provide a proper motivation to combine the references.

For the above reasons, the examiner has failed to state a proper motivation to combine the references. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection of claims 1, 8, and 15.

A.1.2. THE CLAIMS ARE NON-OBVIOUS IN VIEW OF *DAVIS* AND *SAKANISHI* WHEN THE REFERENCES ARE CONSIDERED AS A WHOLE

The claims are non-obvious in view of *Davis* and *Sakanishi* when the references are considered as a whole. "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Hedges*, 228 U.S.P.Q. 685, 687 (Fed. Cir. 1986). Thus, when *Davis* and *Sakanishi* are examined as a whole, *Davis* and *Sakanishi* already teaches one of ordinary skill in the art. Therefore, one of ordinary skill in the art would not be motivated to

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make the examiner's proposed modifications to reach the presently claimed invention when *Davis* and *Sakanishi* are considered as a whole.

Additionally, in making an obviousness determination, one cannot pick and choose among the individual elements or assorted prior art references to recreate the claimed invention. *Symbol Technologies, Inc. v. Opticon, Inc.*, 935 F.2d 1569, 19 U.S.P.Q.2d 1241 (Fed. Cir. 1991). Instead, whether the prior art made obvious the invention must be determined by looking for some teaching or suggestion in the references to support their use in the particular claimed invention. *Id.* As shown above, *Davis* does not teach the claimed features of distributing, by said server computer system, said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by: creating an install directory on said one of said plurality of client computer systems that is specified in said entry; determining an operating system listed in said entry; selecting one of said plurality of different versions of said device driver that is executable by said determined one of said plurality of different operating systems; executing a remote copy command to copy said selected one of said plurality of different versions of said device driver to said install directory created on said one of said plurality of client computer systems that is specified by said entry, said remote copy command utilizing said network address that is specified in said entry; causing, by said server computer system, said one of said plurality of client computer systems that is specified by said entry to execute an install command to install said selected one of said plurality of different versions of said device driver. Also as shown above, *Sakanishi* does not teach the claimed features of gathering, by said server computer system, a network address of each one of said plurality of client computer systems; creating, in said server computer system, a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of client computer systems, and said network address determined for said one of said plurality of client computer systems; and distributing, by said server computer system, said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by: getting an entry from said file; repeating said step of distributing said plurality of versions for each one of said plurality of entries of said file. In view of the fact that the combination of the references fails to teach all of the features of the claims, and in further view of the fact that no reason exists

to further modify the references to achieve the claimed inventions, the natural conclusion is that the claims are non-obvious in view of the references when the references are considered as a whole. Absent some teaching or suggestion in the art, no motivation exists to further modify the references to achieve the claimed inventions, and certainly the examiner also has not provided any motivation to further modify the references. Therefore, the claimed inventions are non-obvious in view of *Davis* and *Sakanishi* when the references are considered as a whole.

In considering the references as a whole, one of ordinary skill in the art would consider the problems addressed by the references. The claims are non-obvious in view of *Davis* and *Sakanishi* because these references are directed at solving different problems. *Davis* is directed to solving problems with installing software across a distributed system with dissimilar hardware and software components, as shown below:

Typically, large, multinational corporations have a distributed system containing many computers spread across a wide geographical area that are networked together. This type of environment makes it difficult and costly to manage the computers in terms of providing software installation, support and maintenance. That is, an administrator of the distributed system has to visit each computer in order to manage the computers. Thus, a significant cost of managing the computers in this type of environment stems from software installation, support, and maintenance. In fact, the initial purchase price of software may be only a small portion of the total cost associated with managing the computers.

The distributed systems of large corporations usually comprise computers that have dissimilar hardware and software components. The lack of uniformity in components is the product of different organizations within the corporation having different needs for their computers. For instance, one organization may consist primarily of clerical workers, who utilize various programs such as word processing programs or spreadsheet programs, that do not require significant processing power, whereas another organization in the corporation that performs engineering research utilizes more computationally intensive programs that require significantly more processing power. Therefore, a large corporation usually has computers with different types of processors to match the differing processing demands of its organizations.

Davis, col. 1, ll. 12-39.

On the other hand, *Sakanishi* is directed to solving problems with ensuring the correct and actual installation of supporting software when the primary software is installed, as shown below:

There have been proposed and actually implemented a variety of conventional methods for distributing software such as a program and a file to a controlled

system. By merely distributing specified software, however, the software may not be usable in the controlled system. In accordance with a conventional technology to solve this problem, before distributing software, a condition is checked. The software is distributed automatically only if the condition is satisfied. Systems adopting this conventional technology are a software-resource distribution & management system disclosed in JP-A-4-175952 and a software automatic distribution & management system described in JP-A-10-301760. In JP-A-7-334436, there is disclosed a software automatic distribution system for distributing necessary software based on a distribution request list created from a dependence relation list of software transmitted from a distributor to a controlled system. There are also a method and an apparatus for installing a plurality of packages classified by package attribute as described in JP-A-10-83280. To be more specific, this method and this apparatus are used for installing only necessary packages selected from a mix of packages.

In the conventional systems, namely, the software-resource distribution & management system disclosed in JP-A-4-175952 and the software automatic distribution & management system described in JP-A-10-301760, if a condition for using software is not satisfied, the software is not distributed. Thus, distribution of unusable software can be avoided. However, there is raised a problem that software cannot be distributed unless the cause of the impossible distribution is removed. This is because whether or not the condition for using software is satisfied is checked automatically, and the distribution of the unusable software is prevented automatically as well.

Sakanishi, col. 1, ll. 15-48.

The problems addressed in *Davis* and *Sakanishi* are distinct. *Davis* is directed to installing correct software with different operating systems and natural languages. On the other hand, *Sakanishi* is directed to ensuring that the correct supporting software and only those supporting software that are necessary are actually installed and not prohibited from being installed. Because the references are directed toward different problems, one of ordinary skill would have no reason to look to *Sakanishi* for the problem addressed by *Davis*. Hence, no motivation exists to combine the references. Accordingly, the claims are non-obvious in view of *Davis* and *Sakanishi* when the references are considered as a whole.

For the above reasons, the examiner has failed to state a *prima facie* case of obviousness and the claims are non-obvious in view of *Davis* and *Sakanishi*. Accordingly, the rejection of claims 1, 8, and 15 are overcome.

A.2. Claims 4-7, 11-14, and 18-21

Claim 4 is a representative claim in this group of claims. Claim 4 is as follows (emphasis added):

4. The method according to claim 1, wherein the step of distributing said plurality of versions of said device driver further comprises the steps of:
getting a *first entry* from said file *utilizing said server computer system*;
determining a *first one* of said plurality of operating systems included in said *first entry utilizing said server computer system*;
determining a network address for a *first one* of said plurality of client computer systems included in said *first entry utilizing said server computer system*;
retrieving a *first one* of said plurality of different versions of said device driver *utilizing said server computer system*, wherein said *first one* of said plurality of different versions of said device driver is executable by said *first one* of said plurality of operating systems; and
copying said *first one* of said plurality of different versions of said device driver to said *first one* of said plurality of client computer systems at said network address *utilizing said server computer system*.

Neither *Davis* nor *Sakanishi* show or suggest all of the features of claim 4. Additionally, because the examiner admits that *Davis* does not teach the feature in claim 1 of getting an entry from said file and *Davis* does not teach or suggest the use of a file at all, *Davis* also cannot teach or suggest any of the features in claim 4 because all features in claim 4 relate to the use of a file. As the emphasized text shows, the method further consists of features such as getting a *first entry from said file* utilizing said server computer system. *Davis* does not teach or suggest that feature or any of the features in claim 4.


Furthermore, *Sakanishi* does not cure the lack of disclosure in *Davis*. As shown above, *Sakanishi* does not teach or suggest the features of claim 4 by utilizing said server computer system. *Sakanishi* does not teach or suggest getting a first entry from said file *utilizing said server computer system*; determining a first one of said plurality of operating systems included in said first entry *utilizing said server computer system*; determining a network address for a first one of said plurality of client computer systems included in said first entry *utilizing said server computer system*; retrieving a first one of said plurality of different versions of said device driver *utilizing said server computer system*, wherein said first one of said plurality of different versions of said device driver is executable by said first one of said plurality of operating systems; and copying said first one of said plurality of different versions of said device driver to said first one

of said plurality of client computer systems at said network address *utilizing said server computer system*. Therefore, *Sakanishi* does not teach or suggest the features of claim 4 as asserted by the examiner and does not cure the lack of disclosure in *Davis*. For this reason, the proposed combination does not teach all of the features of claims 4, 11, and 18. Therefore, the examiner has failed to state a *prima facie* obviousness rejection of claims 4, 11, and 18, which all contain similar limitations.

Claims 5-7, 12-14, and 19-21 depend on claims 4, 11, and 18 respectively. Therefore, all arguments for claims 4, 11, and 18 apply to claims 6-7, 12-14, and 19-21 as well. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection of claims 4-7, 11-14, and 18-21, which all contain similar limitations.

CONCLUSION

In view of the above, Appellants respectfully submit that claims 1, 4-8, 11-15, and 18-21 are allowable over the cited prior art and that the application is in condition for allowance. Accordingly, Appellants respectfully request the Board of Patent Appeals and Interferences to overturn the rejections and allow the claims.


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CLAIMS APPENDIX

The text of the claims involved in the appeal is:

1. A method in a data processing system including a server computer system coupled to a plurality of heterogeneous client computer systems via a network for automatically installing a device driver on said plurality of heterogeneous client computer systems, wherein each of said heterogeneous client computer systems executes a different one of a plurality of operating systems, said method comprising the steps of:

selecting a device driver to be installed;

specifying said plurality of heterogeneous client computer systems to receive said device driver;

storing a plurality of different versions of said device driver in said server computer system, wherein each one of said plurality of different versions is executable by only a different one of said plurality of operating systems;

gathering, by said server computer system, a network address of each one of said plurality of client computer systems;

determining, by said server computer system, one of said plurality of operating systems being executed by each one of said plurality of client computer systems;

creating, in said server computer system, a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of

client computer systems, and said network address determined for said one of said plurality of client computer systems; and

distributing, by said server computer system, said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by:

getting an entry from said file;

creating an install directory on said one of said plurality of client computer systems that is specified in said entry;

determining an operating system listed in said entry;

selecting one of said plurality of different versions of said device driver that is executable by said determined one of said plurality of different operating systems;

executing a remote copy command to copy said selected one of said plurality of different versions of said device driver to said install directory created on said one of said plurality of client computer systems that is specified by said entry, said remote copy command utilizing said network address that is specified in said entry;

causing, by said server computer system, said one of said plurality of client computer systems that is specified by said entry to execute an install command to install said selected one of said plurality of different versions of said device driver;

repeating said step of distributing said plurality of versions for each one of said plurality of entries of said file.

4. The method according to claim 1, wherein the step of distributing said plurality of versions of said device driver further comprises the steps of:

getting a first entry from said file utilizing said server computer system;

determining a first one of said plurality of operating systems included in said first entry utilizing said server computer system;

determining a network address for a first one of said plurality of client computer systems included in said first entry utilizing said server computer system;

retrieving a first one of said plurality of different versions of said device driver utilizing said server computer system, wherein said first one of said plurality of different versions of said device driver is executable by said first one of said plurality of operating systems; and

copying said first one of said plurality of different versions of said device driver to said first one of said plurality of client computer systems at said network address utilizing said server computer system.

5. The method according to claim 4, further comprising the steps of:

said server computer system determining a directory location within said one of said plurality of client computer systems to which to copy said one of said plurality of different versions; and

storing said one of said plurality of different versions of said device driver in said directory location within said one of said plurality of client computer systems.

6. The method according to claim 5, further comprising the step of said server computer system causing said one of said plurality of client computer systems to execute an installation command to install said one of said plurality of different versions of said device driver.

7. The method according to claim 6, further comprising the steps of:
- getting a second entry from said file utilizing said server computer system;
 - determining a second one of said plurality of operating systems included in said second entry utilizing said server computer system;
 - determining a network address for a second one of said plurality of client computer systems included in said second entry utilizing said server computer system;
 - retrieving a second one of said plurality of different versions of said device driver utilizing said server computer system, wherein said second one of said plurality of different versions of said device driver is executable by said second one of said plurality of operating systems; and
 - copying said second one of said plurality of different versions of said device driver to said second one of said plurality of client computer systems at said network address utilizing said server computer system.
8. A data processing system including a server computer system coupled to a plurality of heterogeneous client computer systems via a network for automatically installing a device driver on said plurality of heterogeneous client computer systems, wherein each of said heterogeneous client computer systems executes a different one of a plurality of operating systems, comprising:
- means for selecting a device driver to be installed;
 - means for specifying said plurality of heterogeneous client computer systems to receive said device driver;

means for storing a plurality of different versions of said device driver in said server computer system, wherein each one of said plurality of different versions is executable by only a different one of said plurality of operating systems;

said server computer system for gathering a network address of each one of said plurality of client computer systems;

said server computer system for determining one of said plurality of operating systems being executed by each one of said plurality of client computer systems;

said server computer system for creating a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of client computer systems, and said network address determined for said one of said plurality of client computer systems; and

said server computer system for distributing said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by:

said server computer system getting an entry from said file;

said server computer system creating an install directory on said one of said plurality of client computer systems that is specified in said entry;

said server computer system determining an operating system listed in said entry;

said server computer system selecting one of said plurality of different versions of said device driver that is executable by said determined one of said plurality of different operating systems;

said server computer system executing a remote copy command to copy said selected one of said plurality of different versions of said device driver to said install directory created on said

one of said plurality of client computer systems that is specified by said entry, said remote copy command utilizing said network address that is specified in said entry;

said server computer system causing said one of said plurality of client computer systems that is specified by said entry to execute an install command to install said selected one of said plurality of different versions of said device driver;

means for repeating said distributing of said plurality of versions for each one of said plurality of entries of said file.

11. The system according to claim 8, wherein said means for distributing said plurality of versions of said device driver further comprises:

means for getting a first entry from said file utilizing said server computer system;

means for determining a first one of said plurality of operating systems included in said first entry utilizing said server computer system;

means for determining a network address for a first one of said plurality of client computer systems included in said first entry utilizing said server computer system;

means for retrieving a first one of said plurality of different versions of said device driver utilizing said server computer system, wherein said first one of said plurality of different versions of said device driver is executable by said first one of said plurality of operating systems; and

means for copying said first one of said plurality of different versions of said device driver to said first one of said plurality of client computer systems at said network address utilizing said server computer system.

12. The system according to claim 11, further comprising:

means for said server computer system determining a directory location within said one of said plurality of client computer systems to which to copy said one of said plurality of different versions; and

means for storing said one of said plurality of different versions of said device driver in said directory location within said one of said plurality of client computer systems.

13. The system according to claim 12, further comprising means for said server computer system causing said one of said plurality of client computer systems to execute an installation command to install said one of said plurality of different versions of said device driver.

14. The system according to claim 13, further comprising:

means for getting a second entry from said file utilizing said server computer system;

means for determining a second one of said plurality of operating systems included in said second entry utilizing said server computer system;

means for determining a network address for a second one of said plurality of client computer systems included in said second entry utilizing said server computer system;

means for retrieving a second one of said plurality of different versions of said device driver utilizing said server computer system, wherein said second one of said plurality of different versions of said device driver is executable by said second one of said plurality of operating systems; and

means for copying said second one of said plurality of different versions of said device driver to said second one of said plurality of client computer systems at said network address utilizing said server computer system.

15. A computer readable media including a server computer system coupled to a plurality of heterogeneous client computer systems via a network for automatically installing a device driver on said plurality of heterogeneous client computer systems, wherein each of said heterogeneous client computer systems executes a different one of a plurality of operating systems, said computer readable media comprising:

instructions for selecting a device driver to be installed;

instruction means for specifying said plurality of heterogeneous client computer systems to receive said device driver;

instruction means for storing a plurality of different versions of said device driver in said server computer system, wherein each one of said plurality of different versions is executable by only a different one of said plurality of operating systems;

instructions for gathering, by said server computer system, a network address of each one of said plurality of client computer systems;

instructions for determining, by said server computer system, one of said plurality of operating systems being executed by each one of said plurality of client computer systems;

instruction means for creating a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems determined for said one of said plurality of client

computer systems, and said network address determined for said one of said plurality of client computer systems; and

instruction means for distributing said plurality of versions of said device driver to said plurality of client computer systems utilizing said file by:

instructions for setting an entry from said file;

instructions for creating an install directory on said one of said plurality of client computer systems that is specified in said entry;

instructions for determining an operating system listed in said entry;

instructions for selecting one of said plurality of different versions of said device driver that is executable by said determined one of said plurality of different operating systems;

instructions for executing a remote copy command to copy said selected one of said plurality of different versions of said device driver to said install directory created on said one of said plurality of client computer systems that is specified by said entry, said remote copy command utilizing said network address that is specified in said entry;

instructions for causing, by said server computer system, said one of said plurality of client computer systems that is specified by said entry to execute an install command to install said selected one of said plurality of different versions of said device driver;

instructions for repeating said instructions for distributing said plurality of versions for each one of said plurality of entries of said file.

18. The computer readable media according to claim 15, wherein said instruction means for distributing said plurality of versions of said device driver further comprises:

instruction means for getting a first entry from said file utilizing said server computer system;

instruction means for determining a first one of said plurality of operating systems included in said first entry utilizing said server computer system;

instruction means for determining a network address for a first one of said plurality of client computer systems included in said first entry utilizing said server computer system;

instruction means for retrieving a first one of said plurality of different versions of said device driver utilizing said server computer system, wherein said first one of said plurality of different versions of said device driver is executable by said first one of said plurality of operating systems; and

instruction means for copying said first one of said plurality of different versions of said device driver to said first one of said plurality of client computer systems at said network address utilizing said server computer system.

19. The computer readable media according to claim 18, further comprising:

instruction means for said server computer system determining a directory location within said one of said plurality of client computer systems to which to copy said one of said plurality of different versions; and

instruction means for storing said one of said plurality of different versions of said device driver in said directory location within said one of said plurality of client computer systems.

20. The computer readable media according to claim 19, further comprising instruction means for said server computer system causing said one of said plurality of client computer

systems to execute an installation command to install said one of said plurality of different versions of said device driver.

21. The computer readable media according to claim 20, further comprising:

instruction means for getting a second entry from said file utilizing said server computer system;

instruction means for determining a second one of said plurality of operating systems included in said second entry utilizing said server computer system;

instruction means for determining a network address for a second one of said plurality of client computer systems included in said second entry utilizing said server computer system;

instruction means for retrieving a second one of said plurality of different versions of said device driver utilizing said server computer system, wherein said second one of said plurality of different versions of said device driver is executable by said second one of said plurality of operating systems; and

instruction means for copying said second one of said plurality of different versions of said device driver to said second one of said plurality of client computer systems at said network address utilizing said server computer system.

EVIDENCE APPENDIX

There is no additional evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.